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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,081	12/21/2005	Martin Schlun	117163.00135	2013
21324 7590 08/19/2009 HAHN LOESER & PARKS, LLP One GOJO Plaza Suite 300 AKRON, OH 44311-1076				
EXAMINER TANNER, JOCELYN C				
ART UNIT		PAPER NUMBER		
3731				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/535,081

Applicant(s)

SCHLUN, MARTIN

Examiner

JOCELIN C. TANNER

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Amendment filed 17 June 2009. Claims 1-8 and 10-16 are currently pending. The Examiner acknowledges the amendments to claim 1, 5, 10 and 16 and the cancellation of claim 9.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 June 2009 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 and 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "extending transversely with respect to the bearing structure" in line 84. It is unclear if the extension is referencing the hinge strut or the hinge axis.

5. Claim 1 recites the limitation "the stent" in line 14. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 1 recites the limitation "the expansion direction" in line 24. It is unclear if the expansion direction is referring to the expansion direction of the hinge strut or the bearing.
7. Claim 1 recites the limitation "the expansion direction" in line 28. It is unclear if the expansion direction is referring to the expansion direction of the hinge strut or the bearing.
8. Claims 11 and 16 recite the limitation "the cuts have end regions" in lines 1 and 2. It is unclear if the claim is referring to the hinge struts having cuts that form an expanded configuration or if the cuts have end regions that are expanded.

Claim Rejections - 35 USC § 102

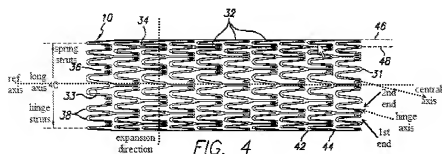
9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1-5, 10, 11, 14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ainsworth et al. (US Patent No. 6,626,935).**
11. Regarding claim 1, Ainsworth et al. disclose a one-piece expandable flat bearing structure having at least partially elastically deformable struts that are separated from each by openings that include spring struts (36) that are elastically resilient with respect to an anchor region on a first end and a resiliently deflectable

second end, and hinge struts (38) adjoining the spring struts at the second ends of the spring struts, a hinge axis formed at the juncture of the spring and hinge struts, the hinge strut having a central axis, wherein the bearing structure is capable of having a compressed, transitional and expanded configuration, at least one expansion direction, a reference axis that extends within the bearing structure and is parallel to the longitudinal axis and transverse with respect to an expansion direction and the hinge axis, wherein the spring and hinge struts are separated by cuts but reside close against each other and the central axis of the hinge strut is transverse to the reference axis in the compressed state, in the transitional condition the hinge strut is pivoted about the hinge axis in an expansion direction such that the central axis of the hinge strut is parallel to the reference axis when the hinge strut begins to expand in the radial direction through decrease in the waveform's amplitude and frequency, the spring strut is simultaneously moved with the hinge struts such that transverse movement of the spring struts with respect to the expansion direction occurs when the amplitude of the hinge struts decreases, and in the expanded condition the hinge strut additionally pivots and is tilted radially outward in the expansion direction and the spring strut is rotated in a second direction opposite to the first, thus retaining their original shape by providing rotational and flexible movement that stabilizes the bearing structure (column 4, lines 40-47, column 5, lines 20-25, column 6, lines 1-7, column 9, lines 20-23, 50-55, column 10, lines 40-46). Please see figure below.



12. Regarding claim 2, Ainsworth et al. disclose a respective spring strut (36) that adjoins both longitudinal ends of a respective hinge strut and the two spring struts are capable of exerting a moment in the same direction of the hinge strut about the hinge axis.
13. Regarding claim 3, Ainsworth et al. disclose two spring struts respectively adjoining a hinge strut that are shaped and arranged in point symmetrical relationship with each other, wherein every part of the spring struts has a matching part when viewed from opposite directions.
14. Regarding claim 4, Ainsworth et al. disclose a bearing structure that forms a peripheral wall of a stent (Fig. 4).
15. Regarding claim 5, Ainsworth et al. disclose an expansion direction extending in the peripheral direction of the stent when the hinge axis is oriented radially.
16. Regarding claim 10, Ainsworth et al. disclose a bearing structure formed by laser cutting wherein the cuts provide hinge struts that are S-shaped or W-shaped in the compressed condition (Fig.4).

17. Regarding claims **11 and 16**, Ainsworth et al. disclose hinge struts that are cut wherein the end regions are expanded when in the expanded condition to reduce a notch effect.
18. Regarding claim **14**, Ainsworth et al. disclose hinge struts that are of substantially uniform cross-section transversely with respect to their central axis.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 20. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainsworth et al. (US Patent No. 6,626,935) in view of Wu et al. (US Patent No. 6,254,632).**

21. Regarding claims **6 and 8**, Ainsworth et al. disclose all of the limitations previously discussed except for the bearing structure being formed of a plastic material.

Wu et al. teaches a stent formed of a bioresorbable plastic material, i.e., polymeric material (column 4, lines 43-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the bearing structure of Ainsworth et al. with bioresorbable polymers, as taught by Wu et al., for the predictable result of

having the stent degrade within the body and eliminate the need for removal of the stent.

22. Regarding claim 7, Wu et al. teaches a stent formed of a magnesium alloy (column 4, lines 43-55).

23. **Claims 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainsworth et al. (US Patent No. 6,626,935) in view of Hancock (US Patent No. 6,423,090).**

24. Regarding claims 12, 13 and 15, Ainsworth et al. disclose all of the limitations previously discussed except for spring struts having a larger cross-sectional area in the anchor regions than in their resiliently deflectable ends.

Hancock teaches a stent including a ring having curvilinear struts having a large cross-sectional area (44) in one region that then tapers to a smaller cross-sectional area (46) in another region, wherein the transitional region is formed at a juncture within the curvilinear ring (Fig. 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the spring struts of Ainsworth et al. as having variable thickness, as taught by Hancock, for the predictable result of controlling the flexibility of the spring strut.

Response to Arguments

25. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOCELIN C. TANNER whose telephone number is (571)270-5202. The examiner can normally be reached on Monday through Thursday between 9am and 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jocelin C. Tanner/
8/12/2009
Examiner, Art Unit 3731

/Anh Tuan T. Nguyen/
Supervisory Patent Examiner, Art Unit 3731
8/15/09